REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remains of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the Claim Amendments and the following remarks.

B. Claim Status and Amendments

Claims 1-3 and 5-15 are pending and presented for further prosecution. Claim 4 has been cancelled. Claims 1, 5, 6, 8 and 9 have been amended. Claims 14 and 15 have been added.

Claim 1 has been amended to recite that the amount of the double oxide present on the surface of the magnesium oxide powder is 5 to 50 mass%. This element was presented in original claim 4 and claim 4 has been canceled.

Claim 6 has been amended to recite the amount of the double oxide and the spherical shape factor as in the amended claim 1 and clarify the fusing treatment is on the surface.

Claim 9 has been amended to clarify the fusing treatment

is a flame fusion process on the surface.

Claims 5 and 8 have been amended to correct typographical errors.

Claim 14 is rewritten from amended claim 1 to more specifically recite a magnesium oxide powder comprising sphere-shaped coated particles having a magnesium oxide core, and a double oxide spherical surface.

Claim 15 is rewritten on the subject matter of amended claim 6, which clarifies that the fusing process is at a temperature higher than the melting point of said double oxide. Support for this limitation can be see, for example, from the 3rd full paragraph at page 5.

No new matter has been added in the amendments.

C. Claim Objection

Claim 5 is objected to because of typographical errors. Applicants have amended claim 5 to correct the typographical errors. In addition, Claim 8 has also been amended to correct similar typographical errors.

D. Claim Rejections under 35 USC § 103

Claims 1-10 and 13 had been rejected under 35 U.S.C.103(a) as being unpatentable over Toshio et al. in view of Miyata et

al. Further, claims 11-12 had been rejected as being unpatentable over Toshio et al in view of Miyata et al and Anabuki et al.

The Examiner took the position that, for the composition claims, 1-5, Toshio teaches a magnesium oxide powder having magnesium oxide particle covered with an enveloping layer containing multiple oxides of silicon and magnesium oxide and the spherical shape is taught by Miyata; As to the method claims 6-9, the Examiner asserted that the combined teachings of Toshio and Miyata teach the method for producing the sphere-shaped coated magnesium oxide powder; Regarding the product claims 10-13, the Examiner further alleged Toshio, Miyata and Anabuki disclose epoxy or silicone rubber resins comprising a magnesium oxide particle surface-coated with silicon oxide.

1. Toshio and Miyata do not teach a magnesium oxide powder with 5-50% double oxide forming a spherical surface layer.

Toshio was cited in the application. As discussed in the specification, although Toshio discloses a magnesium oxide powder having magnesium oxide particle covered with an enveloping layer containing multiple oxides, it does teach or suggest spherical shape of the particle. Toshio's particles have angular spherical shapes, and therefore have low filling

property. The Examiner has recognized this deficiency in Toshio. The Examiner cited Miyata to teach a spherical magnesium oxide particle.

Miyata teaches synthesizing magnesium oxide having a spherical shape achieved by steps C-E, and then coating with SiO_2 in the amount of 0.1-3% on the spherical magnesium oxide particle. Clearly there are two differences between the particles in the present invention and in Miyata:

1) The present invention relates to a magnesium oxide power comprising particles having spherical surface formed by fusing double oxide on the magnesium oxide core. Different from Miyata, the magnesium oxide core in the present invention is not necessarily spherical. The spherical shape is formed by the surface tension of the fused double oxide on the surface of the magnesium oxide particle (See the discussion from line 30 page 6 to line 14, page 7). Therefore, Miyata only disclosed a spherical magnesium oxide core, it does not teach the spherical double oxide surface layer.

2) The present invention recites that the double oxide surface layer comprising double oxide in the amount of 5-50 mass% of the entire coated magnesium oxide particles. In the contrary, the coating of silica or a reaction product between silica and magnesium oxide in Miyata only accounts for 0.1 to

3% of the magnesium oxide particles (see line 56-59, column 5, Miyata).

The applicants have amended claim 1 to recite the amount of double oxide in the surface layer is in the amount of 5-50 mass% of the magnesium oxide particles. Further, the Applicants have added Claim 14 to particularly recite the element of "a double oxide spherical surface layer in the amount of 5 to 50 mass% fused on said magnesium oxide core". These limitations are not taught or suggested by Miyata.

It is therefore respectfully submitted that the combined teaching of Toshio and Miyata does not render claims 1-5 and 14 obvious.

2. Toshio and Miyata do not teach a method forming double oxide spherical surface layer

The present invention teaches a method for producing a sphere-shaped coated magnesium oxide powder having a specific step of applying a double oxide having a melting point lower than the flame temperature on the surface of magnesium oxide particle and fusing the double oxide surface layer by fusing process with a flame temperature higher than the melting point of the double oxide(see page 5, lines 18-31 and page 7, lines

6-14).

In the contrary, the method in Toshio only teaches mixing a silicon compound with a magnesium oxide powder, collecting solids by filtration and drying and calcining the solids so that the surface of the magnesium oxide powder is coated with a coating layer comprising a double oxide of silicon and magnesium. (See Claim 1 of Toshio). Toshio defines "calcining" as a process performed by setting the temperature at the melting temperature or less of the coating material. (See paragraph 18, Toshio).

Toshio's method is cited in the specification of the present application as an old art. The coated magnesium oxide powder obtained by Toshio method has angular shapes and hence has low filling property for a resin, and low flowability. (page 2, line 34 to page 3, line 3). Therefore the method in Toshio does not meet the object of the present invention.

Miyata teaches: crystallite magnesium hydroxide synthesized in steps (A) and (B) is spray dried into particle in step (C) and the particle is then subjected to the low temperature (300 to 900 ^{o}C) firing to form a magnesium oxide in step (D) and pulverization step (E), which is not to destroy the shape of the fired particles in the step C and D (column 3,

lines 48-58, Miyata). After these steps, the magnesium oxide particles are mixed with a mixture liquid including alkoxysilane and then fired at 500 to 900 °C to form a Silicon oxide coating on the surface thereof (See page 3, lines 23 to 30, Miyata).

Clearly, there is no teaching or suggestion in Miyata on a step of fusing the double oxide surface layer with a high temperature to render the particle surface Spherical. In addition, Miyata forms a silica film on the surface of the magnesium oxide with an amount of about 0.1 to 3% by weight (column 5, lines 56-59), which teaches away from the claimed limitation "the double oxide is formed in an amount of 5-50 mass% to the magnesium oxide powder".

Applicants have amended claim 6 to particularly point out "the double oxide is formed in an amount of 5-50 mass% to the magnesium oxide powder" and point out that the fusing step is "fusing the surface of the resultant magnesium oxide powder at a high temperature". To clarify the method steps, Applicants added Claim 15 reiterating the steps comprising:

> mixing a double oxide in an amount of 5-50 mass% with the magnesium oxide powder, so that said double oxide to be present on a surface of a magnesium oxide particle;
>
> fusing the surface of the resultant particle at a

temperature higher than the melting point of said double oxide; and

forming a spherical surface having an average shape factor of 1.25 or less on said particle.

These steps are not taught or suggested by either Toshio or Miyata. Therefore, method claims 6-9 and 15 are patentable over Toshio and Miyata.

3. Toshio, Miyata and Anabuki do not teach resin products filed with magnesium oxide powder claimed in the present invention.

As discussed in the above subsection 1, Toshio and/or Miyata do not teach or suggest a magnesium oxide powder having a double oxide spherical surface layer in the amount of 5 to 50 mass% fused on said magnesium oxide core. Anabuki does not disclose this limitation either. Therefore, the combined teachings of Toshio, Miyata and Anabuki does not teach the resin products filed with magnesium oxide powder as claimed in the claims 10-13.

Applicants respectfully submit that the cited references do not teach or suggest the claimed invention and the claims 1-3 and 5-15 are patentable over the cited references standing

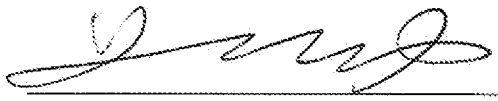
alone or in combination.

E. Conclusion

It is respectfully submitted that application is in condition for allowance, and reconsideration and allowance is hereby requested. Should any fees or extensions of time be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit account # 02-2275.

Respectfully submitted,

LUCAS & MERCANTI, LLP

By: 

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